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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,634	01/29/2001	Fumio Yoshii	1858-25	6760
23117	7590	05/12/2004		
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			EXAMINER KRISHNAN, GANAPATHY	
			ART UNIT 1623	PAPER NUMBER

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/770,634	<b>Applicant(s)</b> YOSHII ET AL.	
	<b>Examiner</b> Ganapathy Krishnan	<b>Art Unit</b> 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-12,16-21,23,26,28-33,35-38,40-44,46 and 49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7,16-21,28-33 and 40-44 is/are allowed.
- 6) ☒ Claim(s) 9-12,23,26,35-38,46 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

The Request for Continued Examination filed February 25, 2004 has been received. This action is based on the following information:

1. Claims 8, 13-15, 22, 24, 25, 27, 34, 39, 45, 47, 48 and 50 have been canceled.

Claims 1-7, 9-12, 16-21, 23, 26, 28-33, 35-38, 40-44, 46 and 49 are pending.

An action on the merits of Claims 1-7, 9-12, 16-21, 23, 26, 28-33, 35-38, 40-44, 46 and 49 is contained herein below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-12, 23, 26, 35-38, 46 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Leavitt (Journal of Polymer Science, 1961, vol. 51, pp. 349-357).

Leavitt drawn to crosslinking of cellulose discloses crosslinked methylcellulose (alkyl cellulose) (see page 350, under subheading "Discussion", lines 1-6 and Table I on page 351). This disclosure of Leavitt is deemed to meet the limitations of Claims 9-12, 23, 26, 35-38, 46 and 49.

Claims 9-12, 23, 26, 35-38, 46 and 49 are product by process claims. Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps.

"Even though product-by-process claims are limited by and defined by the process,

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determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

### ***Conclusion***

1. Claims 1-7, 16-21, 28-33 and 40-44, drawn to a process for producing a self crosslinked alkyl cellulose comprising irradiating with radioactive rays a mixture of 100 parts by weight of alkyl cellulose wherein the alkyl group has 1 to 3 carbon atoms and part of the alkyl groups is substituted by carboxyl group and present in 5 to 2000 parts of water, wherein the said alkyl cellulose is carboxyalkyl cellulose, Hydroxyalkyl cellulose or alkyl cellulose, wherein 20% or more of the entirety of the carboxyl groups are in the form of an alkali metal salt, wherein the self crosslinked alkyl cellulose has a gel fraction of 0.1% or more, wherein the gel fraction is 0.1 to 30% and the self crosslinked alkyl cellulose after drying absorbs 20 times more weight its own weight in water, has a gel strength of 100g/cm.sq or more is neither taught or fairly suggested by the prior art of record which teaches chain degradation of concentrated solutions of the alkyl cellulose is used.

2. Claims 9-12, 23, 26, 35-38, 46 and 49 are rejected.

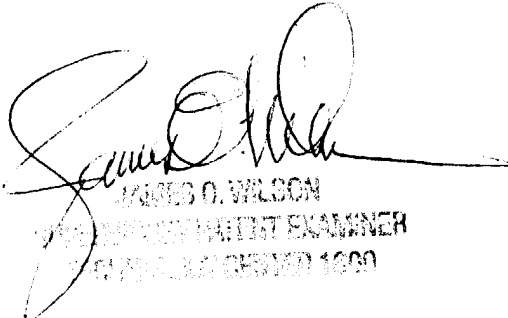
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 571-272-0654. The examiner can normally be reached on 8.30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GK



JAMES O. WILSON  
SUPERVISOR  
EXAMINER  
10/17/09 RECEIVED 1000